

FROM THE THRONE OF THE

Energy Czar

Steven Kropper

gov doc
in the Hospital Doc
617-424-5565

GOVDOC

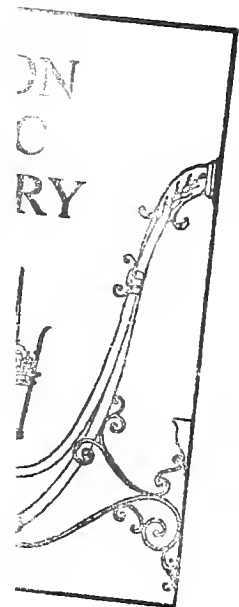
BRA

4831

MARC:

THE ATTACHED WAS PREPARED
FOR DHH'S resource recovery
PLANNERS. ITS PESSIMISTIC
OUTLOOK ON RRF IS INTENDED
TO REFLECT A PAROCHIAL
CONCERN FOR BCM NOT
THE WHOLE CITY.

Steve



Office of Energy Conservation
314 Richards Building
Dept. of Health & Hospitals
818 Harrison Avenue
Boston, Ma. 02118

Recycled Paper

617-424-5132 (office)
424-5386

source recovery plants.

s.

ts of various plants.

THIS IS THE ADDRESS OF THE CITY OF BOSTON INCORPORATION

- (d) proposing entity past performance in projects similar to that proposed and general corporate history
- (e) business organization and personnel availability
- (f) priority placed by the corporate level of the proposer on the work being proposed, or the importance of entry into alternative fuels technology
- (g) availability of financing to the proposer and identification of sources

2.0 Evaluation of the Cost/Price Proposal Information

2.1 Cost/Price Evaluation Criteria

Each proposal will be evaluated to establish:

- (a) The realism and reasonableness of the total proposed cost.
- (b) The probable cost to the Government for the proposed effort.
- (c) If the proposer has indicated the use of Government Furnished Property and/or Services, the proposer shall submit an amount which represents the fair market value of the use of such property or services for use on this proposed agreement. This amount will be added to the proposer's price for evaluation purposes.

(Boston Office of Sanitation)

90104 200
Steven Thompson
HEALTH & HOSPITAL DEPT.
617-424-5365

GOVDOC

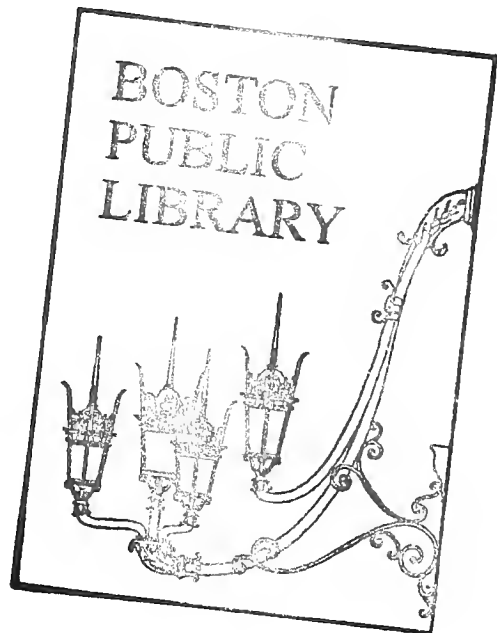
BRA

4831

THE INCINERATOR AT SOUTH BAY,
ITS HISTORY AND FUTURE.

Contents:

Page:	Topic:
1	<u>Past</u>
1	Physical Plant
1	Environmental Considerations (data on incinerator performance)
3	Operational History
3	Court Actions and Plant Emissions
4	<u>Present</u>
4	<u>Future</u>
5	Re-opening of Existing Plant
5	Emissions Control
6	Steam Generation
6	Alternative Site Uses New Facility
7	Transfer/Haul Station
	Appendix
8	Copy of 17-F concerning solid waste
9	1961 Sanitary Division Report
12	128-WFPC estimates of disposal costs for various sized resource recovery plants.
13	Capital costs and tipping charges for various sized plants.
14	Per capita refuse generation; collection and disposal costs of various plants.
17	
18	TABLE 1. SUMMARY OF BOSTON INCINERATOR



THE INCINERATOR AT SOUTH BAY, ITS HISTORY AND FUTURE

THE PAST

PHYSICAL PLANT

The South Bay incinerator was opened in 1960 at a cost of \$6.5 million. It was designed to consume 600-900 tons of municipal refuse per day but at its peakload it never approached this figure. The court which closed the facility found its per diem capacity to be 436 tons; 143,000 tons per year.

The incinerator reduced the weight of refuse entered into it by 75% and its volume by 90%. These figures are typical of incinerators without material recovery.

The incinerator at South Bay was designed to produce low pressure steam for 3 markets: Boston City Hospital, where it would be used for heating and other purposes; the incinerator itself would make heat and hot water from it; Boston Edison's South Boston station would generate electricity from the incinerator's surplus steam. Heat to produce steam was extracted by waterwalls ~~and~~ waste heat boilers. *ON THE*

The facility's 6 furnaces were equipped with auxiliary systems which allowed the burning of oil. These 3 fuel mixes, refuse only, refuse and oil, and oil only, could produce steam.

A discontinuous feed system known as "single charge" or "batch feed" stokes the furnaces. In this system, a crane operated bucket picks a defined volume of refuse from the dumping pit and deposits it in the furnace. The refuse is ignited, and the combustibles are fully incinerated. The furnace is then recharged and the cycle is repeated.

Modern continuous feed systems such as "Moving Grate" (e.g. RESCO) or "Blown Charge", provide the furnace with a steady flow of combustible material. Single Charge furnaces receive a constantly changing fuel (refuse) load which ranges from abundant, at charging, to starved at the cycle's end. Tuning the air flow to the variable fuel load to achieve complete combustion is difficult, hence single charge furnaces pollute badly.

ENVIRONMENTAL CONSIDERATION

Incinerators built today have 2 major components: The furnace and associated resource recovery (heat and/or materials) equipment; and emissions control devices.

Digitized by the Internet Archive
in 2011 with funding from
Boston Public Library

<http://www.archive.org/details/incineratoratsou00bost>

The South Bay facility has none of the latter save a "Whirler Cyclone", a primitive particulate reduction device. If well maintained, it has a potential efficiency of 42%. Contemporary equipment in compliance with emissions standards has up to 98% efficiency.

Most furnaces built today are sufficiently efficient so that they require no gaseous emissions control devices. Only particulate reduction ones. The South Bay furnaces are inefficient AND have no gas abatement equipment.

Gas emissions from the present facility would be in non-compliance with today's standards. Bringing South Bay into compliance would require expensive add-on systems, not merely cyclones or precipitators.

According to Joseph Sances, Chief Engineer of the Sanitation Division, "The South Bay incinerator (was of) inappropriate design for its intended service."

DATA SOURCE	Period	# MONTHS	ANNUAL TONNAGE COLLECTED BY CITY	ANNUAL TONNAGE INCINERATED AT SOUTH BAY	INCINERATOR CAPACITY PER DAY	INCINERATION COST PER TON	PERCENT TOTAL SOUTH BAY
DPW Report	FY 61	12	—	137,764 _T	441 _T	—	67%
"	" 73-74	18	451,688 (301,125) _B	200,273 (133,515) _C	—	\$10.48	44
"	" FY 74-75	12	271,690	109,505	421	\$12.55	40
"	" FY 75-76	12	299,072	75,946	253	\$23 _E	22
COURT FINDINGS		G	—	143,000	436	—	—

- A PERCENT OF THE CITY POPULATION'S REFUSE TO INCINERATOR
 B,C 18 MONTH FIGURE ADJUSTED TO SHOW 12 MONTH PERFORMANCE
 D ESTIMATED DUE TO SHIFT/DAY AND DAY/WEEK CHANGES.
 E EXCESSIVE DUE TO COURT ORDERED PHASE OUT
 F LOW DUE TO PHASE OUT
 G NO DATE WAS ASSOCIATED WITH THE COURT'S FINDING.

OPERATIONAL HISTORY

It has been difficult to locate personnel associated with operation of the incinerator and former employees seem to have suffered amnesia. This has made collection of data surrounding the plant's operation difficult. Nevertheless, the 1961 report of the Sanitation Division of the City's Department of Public Works gives a clear picture of that year's performance. It is believed that this is representative of the facility's decade and a half of operation. For those seeking to understand its history, examination of the 1961 Annual Report is advised. It is presented in the appendix.

The greatest hindrance to successful operation of the plant was "The low quality of personnel" as the present Sanitation Engineer lamented. Extensive personnel problems were experienced which contributed to lowering both operating potential and reasonable preventative maintenance. The latter deficiency prevailed for the life of the facility and was a substantial contributor to the facility's present poor state of repair.

Due to the low dependability of the heat recovery system it was necessary to introduce supplementary fuel oil into the boilers. This stabilized steam production for Boston City Hospital. Since the furnaces were not designed for long-term steam production with oil firing, this process was inefficient and hence "the amount of fuel oil being consumed was excessive."

Within 18 months of the facility's opening, Boston Edison determined that the surplus steam it had contracted to purchase was outside their specifications. Thus, their offer was withdrawn.

It appears that the only malady which did not befall this facility was the need to purchase steam from external vendors for the incinerator's own heating and hot-water needs! The '73-'74 and '74-'75 reports of the Sanitation Division allows no hint of these problems: "Steam generated from the burning refuse was used for providing heat and hot water in the incinerator building."

The incinerator appears to have performed satisfactorily only in disposing of refuse and reducing its size. Even then its capacity never approached 50% of the City's total generated wastes. Its design capabilities claimed it could serve as the sole disposal method for all of Boston's wastes.

COURT ACTIONS AND PLANT EMISSIONS

On August 1, 1975, Suffolk Superior Court, Judge Hallissey ordered the incinerator closed when he ruled against the City in a suit brought by William Bicknell, the State Commissioner of Public Health - (Bicknell vs. City of Boston).

The plaintiff contended that the South Bay incinerator's particulate and gaseous emissions were in violation of State standards. Due to the estimated \$40,000 cost of obtaining and actual stack sample and

analyzing it, another method of determining violation was used. By studying the volume of refuse entered into the incinerator, and the facility's specifications, its non compliance was established.

At the time of the court fact finding, the incinerator's only abatement device, the "Whirler Cyclone" was "not working".

The court found total incinerator downtime to be 40 days per year, although it was not noted if these were contiguous. In 1961, 12 days of down time were suffered in 6 blocks of 2 days.

My discussions with counsel for the City, other City personnel and, State and Federal officials, and my study of the South Bay facility indicate that the decision to challenge the State's filing for closure was unwise. Evidence suggests that a decision would be rendered against the City, and costs of litigation, plus continued incinerator operation exceeded the ^{cost of} available disposal alternatives.

The court's ruling supports this: "The court does not believe that this is a situation of impossibility, or extreme hardship involving one who has made, and is making good faith efforts to comply with the law. On the contrary, the overall picture in this case shows considerable foot-dragging by the City."

THE PRESENT

The South Bay facility and site are now under the jurisdiction of the Public Works Department. The yard and incinerator are being used by the Street Lighting Division for storage of various items peculiar to their function. There are no plans currently under consideration to change the use of this site.

Of all the alternative uses I have explored for the South Bay incinerator and site all but one have addressed the problem of solid waste disposal. The exception suggests a use for the refuse pit, a concrete trough, 200 feet long, 50 feet wide and 75 feet deep. If it were cleaned, and an inclined false bottom installed, Boston would be presented with a swimming pool.

THE FUTURE

Should the City desire to restore the South Bay facility to a role in its refuse disposal system it has 3 options.

1. Various changes and additions can be made to the existing plant which will bring its emissions down to acceptable levels and allow it to serve its original purpose.
2. A new incinerator - power plant could be built on the site of the present one. It could serve Boston only, or a wider region.

3, The existing facility could be adapted to serve the City as a transfer haul station. The station would serve as a transshipment point for City refuse enroute to a larger disposal facility to be built elsewhere.

REOPENING OF EXISTING PLANT

There is a concensus among the Department of Public Works staff and all I have spoken with that the South Bay incinerator can and should not reopen for refuse disposal. Their reasons range from economic ones to engineering feasibility depending on their professional vision. This unanimity of opinion constitutes considerable inertia within the human structure of the City's solid waste disposal system against the construction of add-on equipment to bring the facility into compliance.

To rejuvenate the existing plant, deficiencies associated with its 3 years of inactivity, previous years of poor maintenance, and excessive pollution must be corrected.

The plant can be brought "on line" again, but only at tremendous costs. At the time of its closing, no investment was made to "mothball" the plant so as to reduce reopening costs should that ever be desired.

Maintenance costs for the 2 years previous to its closing averaged \$175,000. It can be conservatively estimated that recommissioning costs would exceed \$1 million. A number of persons familiar with the incinerator's operations stated that it is in poor repair.

EMISSIONS CONTROL

Any alterations made to the incinerator with the intent of bringing it into compliance with current standards would need to include gaseous and particulate emissions reduction equipment. Simple fine tuning of existing equipment would be insufficient. Modifications to the furnaces and precipitators would be required.

The engineering problems^{Associated} with particulate reductions are minor. The existing plant allows space for devices adjacent to the chimneys which are on the periphery of the plant. An induced draft fan would draw exhaust gases from the furnace and speed them through the electrostatic precipitators. Construction of new "smoke" stacks would also be necessary.

There's a question for The Medical Area Services Corporation (MASCOS) had planned to include 2 20 ton per day single charge waterwall incinerators in their waste complex. facility changes which would reduce emissions, the incinerator plans were deleted. Their primary concern lay with gaseous emissions. Removal of particulates was to be accomplished by electrostatic precipitators at a cost of \$1.5 million. The capacity of the South Bay facility is 10 times that of the MASCOS plant! While significant economies of scale over the MASCOS cost would be enjoyed if precipitators were built on the City's

facility, the costs would be significant. Abatement would require an investment of considerably more than \$1.5 million.

Reduction of gaseous emissions presents a significantly greater challenge and investment. For these, chemical devices are required while soot (particulate) requires only electro-mechanical devices.

Given the condition, and obsolete nature of the furnaces, any attempt to reduce plant emissions would take the form of correcting a deficient system.

STEAM GENERATION

The costs incurred in making alterations which will guarantee a dependable supply of steam would exceed the benefits of such a by-product. Unlike emissions control equipment, heat recovery devices are inexorably intertwined with the furnace. To produce steam for the facility's own use, extensive repairs of the existing system would be required. To provide a dependable supply of steam to adjacent facilities would require the addition of an entirely new recovery system.

Most of the heat extracted from refuse at the South Bay facility comes from the waterwalls which line the furnace near the exhaust vents. This extraction method is still used on State-of-the-Art facilities such as the once planned MASCO incinerator or the RESCO Power Plant. However, the waterwalls at South Bay are of a primitive type. Their most glaring deficiency is the lack of automatic devices to clean them. This oversight allows ash to build up on the waterwalls, thus insulating them from hot exhaust gases and making heat recovery difficult. This has been a problem since the plant's opening at which time manual cleaning was employed!

In newer facilities such as Wheelabrator-Frye's RESCO this operation is performed automatically by mechanical rappers,

The South Bay plant does have waste heat boilers, but these have a lower efficiency than contemporary devices.

ALTERNATIVE SITE USES

Should the city decide against revitalization of the South Bay Incinerator in its present form, the site and all of the building can be host to a new facility. There are many advantages to the inclusion of the South Bay Site in the City's refuse disposal system.

The proximity of a Boston Edison Plant provides a probable market for steam produced by a new facility. Boston City Hospital, only 2000' distant further enhances the site. Other advantages are discussed in the following transfer haul section.

The South Bay Site is 5 acres. This is an absolute minimum for a 1,000 ton per day plant similar to the Resco facility. There is insufficient space to accomodate peripheral componants such as a foundry, residue landfill or recovered materials storage area.

Various parts of the existing structure from the foundation to the frame and walls can be used in a new facility.

The building is large enough to contain a power plant similar to Resco of sufficiant capacity for the whole city.

Many years ago, a request for proposals (REF) on a new incinerator was written, but never released by the City's Department of Public Works. It offered the present facility for use in any configuration they saw fit. It is anticipated that any proposal would make use of at least the foundations. Recent, though unsubstantiated questions concerning the foundation's ability to support a new structure have been raised.

TRANSFER/HAUL STATION (T/H STA)

A Transfer Haul Station is a facility which enables 3-5 ton capacity refuse collection trucks to transfer their contents to larger (i.e. 20 ton) trucks. These larger vehicles would then haul refuse to a disposal facility at another location.

The South Bay Incinerator and Site has many attributes which make its conversion into a T/H Station ideal.

Access routes are already in place. The commercial nature of the surrounding area indicates there would be no constituency which would object to local movement of refuse trucks.

The site has ample space for a T/H Station and certain elements of the existing structure lend it to conversion.

A Refuse Pit and Crane Asserby, potential componants of a T/H Station are already in place. Hence the costs of conversion are reduced and most of the work can be performed by City employees.

Were a Regional facility used to dispose of the City's wastes it is probable that a T/H Station would be required.



Boston City Council

NEW CITY HALL
ONE CITY HALL SQUARE
BOSTON, MASSACHUSETTS 02201

LAWRENCE S. DICARA
President

Tel. 725-4217

June 5, 1978

WHEREAS: The South Bay incinerator, which in the fiscal year prior to its closing, provided a method for disposing of 40% of Boston's solid wastes.

WHEREAS: ~~This facility was closed in August of 1975 as a result of a decision against the City by Judge Hallisey in Bicknell vs City of Boston.~~

WHEREAS: The incinerator closing required the exercise of various other refuse disposal options including expanded dumping at the City's Gardner St. facility and, disposal of waste in privately owned landfills under contract with the city.

WHEREAS: An increasingly restrictive regulatory climate surrounding landfill operation and the avowed intent by state and Federal officials to end this disposal method does not guarantee that present methods of disposal will long continue to be available to the city.

RESOLVED: That the Commissioner of Public Works, Joseph Casazza, supply answers to the following questions, under 17F of Chapter 452 of the Acts of 1948 as amended, as well as any authority vested in the council, to be received by the Boston City Council within fourteen days.

1. What plans have, or are being formulated to guarantee the future availability of acceptable disposal methods for the City's solid wastes?
2. What steps are being taken to include the City in regional solid waste planning which may provide opportunities for disposal of the City's waste?
3. Has the City attempted to interest and cooperate with private industry in guaranteeing the availability of acceptable long term solid waste disposal methods?

disposal site at Saugus for the disposal of all the refuse from East Boston, and on a part time basis from Charlestown and Boston Downtown when required. The other two contracts were for the purchase of garbage, one being with Kristoff Brothers for removing all the garbage delivered to the Victory Road Station, paying the City \$1500 per year, and the other with Kennedy Brothers for removing all the garbage delivered to the Gardner Street Transfer Station, paying the City \$2500 per year.

INCINERATOR

① The South Bay Incinerator received and disposed of a total of 137,764 tons of refuse for the year 1961. On April 1st, District 7-Dorchester(South) was added to the districts being served by the incinerator, making the population served by the incinerator 67% of the City's total population. (This necessitated changing the plant operating schedule from 5-1/3 days of 16 burning shifts per week to 7 days of 21 burning shifts per week. On 12 days the plant was closed, and the refuse collection trucks were diverted to the dump on the following days: February 23 and 24, March 29 and 30, April 13, 14 and 15(1/2 day), June 7 and 8, September 8(1/2 day), September 9(1/2 day), November 29 and 30, and December 1(1/2 day). In May, it was decided to no longer accept refuse from private collectors as the small income did not warrant the added burden. Small quantities of confidential papers continued to be destroyed as a public service.

During the year the plant maintenance force, in addition to routine maintenance, made the following changes in the plant equipment: Installed a second connection for an emergency water supply to the boiler feed pumps, and replaced the valving on the forced draft turbines; installed a new hydraulic pump to operate the furnace grates and gates; relocated and repaired the vacuum pumps on the hot water heating system; rebuilt one Blaw-Knox 3-cubic yard crane bucket; installed steam cleaning apparatus for automotive equipment, and installed a 440-volt welding circuit throughout the building.

Maintenance work performed under contract included realignment of crane rails and welding reinforcements to the crane rail structural supports; installing additional valving on the deaerator and heater of the boiler feed water system; replacing bronze valves with steel valves on the I.D. fan piping; installing steel valves on steam lines in the machinery tunnel; removing old and installing new fuel oil flow meter, and replacing worn-out refractories on charging throats and over furnace doors. A study was under way concerning the installation of a secondary source of electric power by supplementing the present overhead service with an underground service by the Boston Edison Company, or the installation of a 350-KW Diesel generator.

The operation of the plant continued to present many problems, some being minor in nature. At no time has there been a sufficient number of adequately trained personnel. Consequently, a large number of temporary employees have been used, resulting in a

large turnover of personnel. Absenteeism averages 14.25%, which is approximately 50% higher than the normal plant figure. The change on April 1 from 5-day operation to 7-day operation, with a resultant loss of Saturday and Sunday weekends for three-quarters of the time by the operating personnel was damaging to plant personnel morale.

Plant maintenance has been difficult due to the shortage of and the inability to obtain adequate personnel. As a result, it has been almost impossible to establish a program of preventive maintenance, and the short-handed maintenance crew has had practically all of its time occupied by repairing breakdowns in plant equipment. A particular problem which was improved as the year progressed was in the cleaning out of the combustion chambers and by-pass flues. Investigation was being made to obtain mechanical equipment that could perform this work, most of which has to be done manually.

On May 20, we commenced transmitting steam from the incinerator to the Boston City Hospital for their use for generating electric power and for heating, laundry, cooking and sterilization. During the summer months, the hospital occasionally reported a drop in pressure, which necessitated burning fuel oil under the waste heat boilers. With the advent of the cooler weather, it was found necessary to burn fuel oil to supplement the burning rubbish in order to meet the hospital steam demand, and the amount of fuel oil being consumed was excessive. Studies of this problem are being made with the view to determining the cause and remedying the condition. On April 3, the Boston Edison Company withdrew its offer to buy surplus steam from the incinerator and lease the City Hospital power plant, this offer having been under consideration during several preceding years.

The hauling of residue from the plant to the Calf Pasture continued to be a major problem. In order to eliminate the dripping of quenching water on the streets, we commenced the installation of fishtails to replace the tail gates on the trucks. Due to excessive down time of the three 10-ton trucks, leaving only one truck in operation most of the time, we commenced in September dumping the ash in the incinerator yard and hauling the dry ash to the dump on Saturdays and Sundays with Highway Division equipment.

Metcalf & Eddy, the consulting engineers who designed the plant, were engaged to make a study of plant operations for a one-year period commencing June 1, and submitted monthly reports of their observations and recommendations. In September, we requested and His Honor the Mayor approved the consulting engineers engaging an engineer with extensive steam generating utility plant experience to work full time at the incinerator for the last six months of their contract to supplement their one-day-a-month study. As of the end of the year, this engineer was unable to accept the assignment.

A program of rodent control was conducted at the dumper and incinerator throughout the year with the baiting done twice a month in the warm weather and once a month during the cold weather. This program is

Sanitary Division P.W.D. Annual Report

1961

evidently effective, as we have received no complaints concerning excessive rat infestation.

SNOW REMOVAL

During the months of January, February and March, the Sanitary Division was responsible for the removal of snow from the retail trade district and the North End. Due to the severity of snowstorms in this period, the Division's personnel and equipment was augmented by hired equipment, and the Division did an excellent job of snow removal.

In October, a Snow Emergency Center was established by the Director of Administrative Services. The Snow Co-Ordinating Table was to have representatives from fourteen departments, the Sanitary Division Engineer, as Deputy Commissioner, to be Chairman. This unit was organized and supervised by the Administrative Section of the Sanitary Division. Originally, headquarters were planned to be at the White Stadium, but due to lack of adequate winter quarters, headquarters were established on the first floor of the Fire Headquarters Building on Southampton Street. The purpose of this unit is the processing of all telephone calls from the public to the responsible agencies, and it first functioned during the storms of December 24 and 25, 1961, in a most creditable manner.

CONCLUSIONS

There was an improvement through the year in the Division's operations in general. The work performance under the Garbage and Refuse Collection and Removal contracts appeared improved over prior years. The failure to eliminate many of the problems of the incinerator has been a disappointment, and will be the major objective of the Division in 1962. The acquisition of an adequate number of personnel and equipment will solve many of the problems. The major goal for the coming year will be to increase the refuse burning efficiency of the incinerator furnaces, and the correction of the plant design and operating procedures that are causing excessive fuel oil consumption, in order that we may realize the fullest savings to the City in the generation of steam at the incinerator for the City Hospital.

(12)

The following table presents costs per ton of various disposal sites and resource recovery techniques collected by the 128 West Resource Recovery Council. Associated capital costs were not tabulated by the Council because this body has determined that the "Best" arrangement for disposal of municipal refuse involves construction, operation and financing of resource recovery facilities by private industry. The only financing assistance offered to the developer would be in the form of revenue bonds issued by the host community. Prior to the commencement of construction member communities would make guarantees of tonnage to be delivered. Hence, of primary concern to users is the disposal, cost per ton.

FACILITY SITE	SERVICE AREA	TONS PER YEAR (PER DAY)	PROCESSING ONLY COST PER TON		TOTAL COST (Processing And Transit) Per Ton To Users		
			Power	STEAM	Power	STEAM	RDF-
FOUGHTON	128 WEST, NORFOLK CO BEDSTON	1,443,280 (4,000)	\$2.08	52¢	\$8.40-11	\$6.90-9.37	\$12-14.5
BOSTON	"	"	\$2.08	52¢	\$7.30-9.70	\$5.70-8.10	\$11-13.5
BOSTON	BOSTON, SOMERVILLE, CAMBRIDGE	669,000 (2000)	8.75	\$6.38	\$11.70	\$9.33	10.27
EDFORD	12 Surrounding Communities	150,000 (410)	\$30.79	\$25.55	\$36	\$31	\$15.70
FOUGHTON	128 WEST (27 TOWNS)	463,360 (1270)	\$12.75	\$9.88	\$21.33	\$18.46	\$16.63

This data was compiled by the Mitre Corp. from various sources.

* Refuse Derived Fuel. The isolated, shredded, compacted combustible component of solid waste.

ANNUAL DISPOSAL COSTS TO CITY

PERIOD	TONS	POWER	STEAM	RDF	COST OF DISPOSAL
1/1/73 - 12/31/73	3,011,000	\$5.1	\$2.2	\$3.8	\$3.5
1/1/74 - 12/31/74	2,711,670	\$5.2	\$2.2	\$3.8	\$3.5
1/1/75 - 12/31/75	2,991,072	\$5.5	\$1.5	\$4.2	\$3.9

ALL COSTS IN MILLIONS @ \$14/TON @ \$13/TON

This table presents data on resource recovery facilities in the U.S. which are in current operation and not under variance from air quality regulations. They are considered to be in operation not in start up.

FACILITY	CAPITAL COST 1	DATE OF OPENING	TPD CAPACITY	CAPITAL COST PER TON/DAY	PER TON BURNING COST
ERRICK, N.Y.	\$3.0	1952	60	\$50K	— 2
FOLK, VA	\$2.2	1967	360	\$6K	— 2
AINTREE, MA 3,4	\$2.5	1970	240 (175)	\$10,416 (14,285)	\$30 (5)
SHVILLE, TENN	\$24.5	1974	400	\$61,250	— 2
SCO AT SAUGUS	\$50	1975	1200	\$41,700	\$13.0 5

1 ALL COSTS IN MILLIONS OF DOLLARS

2 NOT SUPPLIED

3 THIS FACILITY CLOSED DUE TO VIOLATION OF EMISSIONS STANDARDS

FIGURES IN BRACKETS ARE CORRECT FOR THE PERIOD PRIOR TO ITS CLOSING TO MEMBER COMMUNITIES, BOSTON PAYS \$14.40/TON

This table presents a tabulation of bids submitted to a Florida regional resource recovery agency. The capacity of the facility bid on is 450,000 tons per year. 1975-76 Boston generated 300,000 tons of refuse.

BIDDER	CAPITAL COST	BONDING REQUIREMENT	OPERATING COST PER TON	1981 DISPOSAL FEE PER TON	2001 DISPOSAL FEE PER TON	CAPITAL COST PER TON
CELABRATOR-TE INC	71.0	100.0	\$12.88	21.22	44.15	57.7K
UNION CARBIDE	106	139	23.22	34.68	73.71	86K
COMBUSTION ENGINEERING	76	120	7.67	22	38	\$62K

$$450,000 \text{ TONS/YEAR} = 1230 \text{ TPD}$$

3 FIGURES ON THIS LINE ARE AVERAGE OF TWO FINANCING METHODS PROPOSED BY UNION CARBIDE ONE INVOLVES AN EQUITY POSITION BY UCC, THE OTHER NOT.

Per CAPITA COSTS

POUNDS OF REFUSE
GENERATED PER
CAPITA PER DAY
(NATIONAL MEAN)
LBS/YEAR

TONS/YEAR

COLLECTION COST
PER PERSON PER YEAR
(CITY OF BOSTON - FY 75-76)

3.52	1285	.6462	\$12.52 _H	RESCO	GARDNER ST. LANDFILL	Proposed REGIONAL
PER CAPITA ANNUAL DISPOSAL COSTS				\$9.00 _I	\$2.0 _J	\$6.20 _K
PER CAPITA, ANNUAL COLLECTION AND DISPOSAL COSTS - VARIOUS METHODS				\$21.52	\$14.52	\$18.72

H AT \$19.50/TON

I AT \$14.20/TON

J AT \$3.10/TON

K AT \$9.63/TON (CONSERVATIVE ESTIMATE)



Boston City Council

NEW CITY HALL
ONE CITY HALL SQUARE
BOSTON, MASSACHUSETTS 02201

LAWRENCE S. DICARA
President

Tel. 725-4217

FOR IMMEDIATE RELEASE

JUNE 9, 1973

FOR FURTHER INFORMATION CALL HUGH KELLEHER AT 725-4217

BOSTON CITY COUNCIL PRESIDENT LAWRENCE S. DICARA THIS WEEK CALLED FOR A RE-EXAMINATION OF SOLID WASTE DISPOSAL METHODS WITHIN THE CITY. DICARA SAID, "FOR YEARS AND YEARS BOSTON HAS BEEN POLLUTING ITS LAND, WATER, AND AIR THROUGH DISPOSAL OF ITS SOLID WASTE, AND IT IS TIME TO EVALUATE OTHER OPTIONS."

DICARA POINTED OUT THAT UP UNTIL ITS CLOSING IN AUGUST 1975, BOSTON'S SOUTH BAY INCINERATOR WAS USED FOR DISPOSAL OF 40% OF THE CITY'S SOLID WASTE. SINCE THEN, THE CITY HAS HAD TO INCREASE DUMPING AT THE GARDNER STREET LANDFILL IN WEST ROXBURY AND HIRE ADDITIONAL PRIVATE CONTRACTORS. DURING THE 1975-76 FISCAL YEAR, DISPOSING OF SOLID WASTE AT GARDNER STREET COST \$3.10 PER TON. DISPOSAL THROUGH PRIVATE CONTRACTORS COST UP TO \$14.40 PER TON.

CITING RECENT ESTIMATES DICARA SAID THAT WITHIN 6 YEARS THE GARDNER STREET LANDFILL WILL BECOME A HAZARD AND A POLLUTANT TO THE CHARLES RIVER AND WILL HAVE TO BE CLOSED DOWN. WHEN THIS OCCURS, THE CITY WILL HAVE NO MORE LANDFILL SPACE. THEREFORE ALTERNATIVE DISPOSAL METHODS AND LONG TERM PLANNING ARE ESSENTIAL.

"WE HEARD A LOT OF TALK ABOUT ENVIRONMENTAL PROBLEMS EARLIER IN THE 70s," DICARA SAID. "WE OWE IT TO OURSELVES TO MAKE SURE WE USE THE SAFEST AND CLEANEST DISPOSAL METHODS WE CAN REASONABLY AFFORD. I HAVE THEREFORE SUBMITTED A RESOLUTION TO THE MAYOR CALLING FOR INFORMATION ON THE CURRENT STATUS OF THE CITY'S DISPOSAL SYSTEMS. I ALSO WANT TO MAKE SURE THAT THE ADMINISTRATION DEVELOPS SOME CAREFUL PLANS FOR THE FUTURE."

THE DICARA RESOLUTION WAS PASSED UNANIMOUSLY BY THE COUNCIL. A COPY IS ATTACHED

METROPOLITAN DISTRICT COMMISSION
 BOSTON METROPOLITAN AREA
 WASTE TREATMENT FEASIBILITY STUDY
 TRUCK AND RAIL ACCESS FOR CITY OF BOSTON INCINERATOR

